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| Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | | Complete if Known | |
| | | | Application Number | Not Yet Assigned 10/19,837 |
| | | | Filing Date | Herewith 11/20/03 |
| | | | First Named Inventor | Miller, David |
| | | | Art Unit | Not Yet Assigned 2834 |
| | | | Examiner Name | Not Yet Assigned Tom Dougherty |
| Sheet 1 | of 3 | Attorney Docket Number | 019930-002810 | |

| U.S. PATENT DOCUMENTS+ | | | | | | |
|------------------------|-----------------------|-----------------|-----------------------------------|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number | Kind Code ² (if known) | | | |
| TMD | AA | 5,414,540 | | 05/09/95 | Patel et al. | |
| TMD | AB | 5,917,625 | | 06/29/99 | Ogusu et al. | |
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| TMD | AH | 6,128,122 | | 10/03/00 | Drake et al. | |
| TMD | AI | 09/442,061 | | 11/16/99 | Weverka, et al. | |
| | AJ | US- | | | | |
| | AK | US- | | | | |
| | AL | US- | | | | |
| | AM | US- | | | | |
| | AN | US- | | | | |
| | AO | US- | | | | |
| | AP | US- | | | | |
| | AQ | US- | | | | |
| | AR | US- | | | | |
| | AS | US- | | | | |
| | AT | US- | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|--------------------------|---------------------------|---------------------|-----------------------------------|--------------------------------|---|--|--------------------------|
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | | Country Code ³ | Number ⁴ | Kind Code ⁵ (If known) | | | | |
| | AU | | | | | | | <input type="checkbox"/> |
| | AV | | | | | | | <input type="checkbox"/> |
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| | AZ | | | | | | | <input type="checkbox"/> |
| | BA | | | | | | | <input type="checkbox"/> |
| | BB | | | | | | | <input type="checkbox"/> |

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| Examiner Signature | <i>Thomas M. Dougherty</i> | Date Considered | May 28, 2004 |
|--------------------|----------------------------|-----------------|--------------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 801.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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| Substitute for form 1449B/PTO | | | Complete if Known | | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | | Application Number | Not Yet Assigned 10/7/9, E.S.7 | |
| | | | Filing Date | Herewith 11/20/03 | |
| | | | First Named Inventor | Miller, David | |
| | | | Art Unit | Not Yet Assigned 2E34 | |
| | | | Examiner Name | Not Yet Assigned Tom Dougherty | |
| Sheet | 2 | of | 3 | Attorney Docket Number | 019930-002810 |

| NON PATENT LITERATURE DOCUMENTS | | | |
|---------------------------------|-----------------------|---|----------------|
| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
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| TMD | BD | Kenneth Bean, et al., "Anisotropic Etching of Silicon," IEEE Transactions on Electron Devices, Vol. Ed-25, No. 10, October 1978 | |
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| TMD | BF | A.S. Dewa, et al., "Development of a Silicon Two-Axis Micromirror for an Optical Cross-Connect," Solid State Sensors and Actuators Workshop, Hilton Head, South Carolina, pp. 93-96 | |
| TMD | BG | Joseph Ford et al., "Wavelength Add Drop Switching Using Tilting Micromirrors," Journal of Lightwave Technology, Vol. 17, No. 5, May 1999 | |
| TMD | BH | J. Grade et al., "A Large-Deflection Electrostatic Actuator for Optical Switching Applications, Solid-State Sensor and Actuator Workshop, Hilton Head Island, South Carolina, June 4-8, 2000; pp. 97-100 | |
| TMD | BI | V. Kaajakari et al.; "Ultrasonic Actuation for MEMS Dormancy-Related Stiction Reduction," In MEMS Reliability for Critical Applications, Proceedings of SAPIE Vol. 4180 (2000); pp. 60-65 | |
| TMD | BJ | T.L. Koch et al., "Anisotropically etched deep gratings for InP/InGaAsP optical devices," J.App. Phys. 62 (8), 15 October 1987 | |
| TMD | BK | I. Nishi et al., "Broad-Passband-Width Optical Filter for Multi-Demultiplexer Using a Diffraction Grating and a Retroreflector Prism," Electronics Letters, Vol. 21, No. 10, 9 th May 1985 | |
| TMD | BL | P. Phillippe et al., "Wavelength demultiplexer: using echelette gratings on silicon substrate," Applied Optics, Vol. 24, No. 7, 1 April 1985 | |
| TMD | BM | M. Schilling et al., "Deformation-free overgrowth of reactive ion beam etched submicron structures in InP by liquid phase epitaxy," Appl. Phys. Lett. 49 (12), 22 September 1986 | |
| TMD | BN | Z. J. Sun et al., Demultiplexer with 120 channels and 0.29-nm Channel Spacing," IEEE Photonics Technology Letters, Vol. 10, No. 1, January 1998 | |
| TMD | BO | W. Tang, et al., "Electrostatically Balanced Comb Drive for Controlled Levitation," Reprinted from Technical Digest IEEE Solid-State Sensor and Actuator Workshop, June 1990; pp. 198-202 | |
| TMD | BP | L. Torcheux et al., "Electrochemical Coupling Effects on the Corrosion of Silicon Samples in HF Solutions," J. Electrochem.Soc., Vol.142, N . 6, June 1995 | |

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| Examiner Signature | <i>Thomas M. Dougherty</i> | Date Considered | May 28, 2004 |
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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| | | | | First Named Inventor | Miller, David |
| | | | | Art Unit | Not Yet Assigned 2834 |
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| Sheet | 3 | of | 3 | Attorney Docket Number | 019930-002810 |

| NON PATENT LITERATURE DOCUMENTS | | | |
|---------------------------------|--------------------------|---|----------------|
| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| MD | | P. VanKessel et al., "A MEMS-Based Projection Display," Proceedings of the IEEE, Vol. 86, No. 8, August 1998; pp. 1687-1704 | |
| MD | | Microfabricated Silicon High Aspect Ratio Flexures for In-Plane Motion; dissertation by C. Keller, Fall 1998 | |
| MD | | Gimballed Electrostatic Microactuators with Embedded Interconnects; dissertation by L. Muller; Spring 2000 | |

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